

Deception – understanding lies with collaboration

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Like most other psychology students, I regularly encountered the question ‘Can you read my mind?’ during my undergraduate years. When I started a PhD in the area of lie detection, this was soon replaced with ‘Can you tell if I’m lying...?’. Although I would have loved to impress my friends and family with my super-human lie-detection skills, unfortunately all I could offer in response was a discussion of the variable findings in this complex research field, much to their disappointment!

My PhD research at Cardiff University, focused on two main areas of deception research. The first was an exploration of the cognitive processes involved in telling a lie, whilst the second explored potential individual differences in the ability to detect deception. Although my PhD work focused on observable behaviour and interactions, as my research career has progressed I have become increasingly interested in the influence of social media on deceptive communication.

Unlike more traditional forms of social communication and interaction, social media provides a means for individuals to create, modify and exchange information across virtual networks and communities, thereby allowing interaction between people who may have never met before and who have no prior knowledge of each other (Kietzmann & Hermkens, 2011). Although this capability provides significant benefits to society, it also has the capacity to be used to achieve more damaging ends: the media regularly

highlight the role that social media and online communications have played in the recruitment of terrorists, the ‘grooming’ of children by paedophiles, and cyber-bullying.

Social media offers those bent on deception a number of advantages over and above face-to-face communication. Although not explicitly focused on deception processes, an interpersonal communication theory known as the hyperpersonal model (Walther, 1996) highlights how individuals can strategically edit information in order to aid self-presentation in online environments:

- █ In face-to-face communication, we can choose what information to share to a certain extent, but there is much greater potential to do this online. For example, a lack of physical verification may make it difficult to determine whether an individual’s stated age, sex or other physical characteristics are indeed true.
- █ When communicating across social media, there are fewer contextual cues available to receivers to aid in the processing and judgement of presented information. Online relationships that occur based on common interests or group solidarity can result in receivers idealising the persona of the sender and considering all of their messages in relation to this idealised view (i.e. potentially in a more positive or honest light).
- █ Senders have longer to edit and

consider messages. Since telling lies is considered more cognitively challenging than telling the truth, with findings of longer response times to questions for liars (Walczyk et al., 2003), this is particularly relevant to deceptive communication.

- █ The lack of nonverbal cues found in the majority of online environments may also increase the difficulty of trying to differentiate honest from deceptive communicators, as highlighted by both social presence theory (Daft & Lengel, 1986) and media richness theory (Short et al., 1976).

Given the potential ease of online deception and its possible consequences, it is increasingly important to understand these processes. Although research has examined potential differences in deceptive behaviour across different media (i.e. potential differences across computer-mediated communications compared with face-to-face communications: Lewis & George, 2008), there is still considerable work to be done to keep up with the continually changing nature of online environments and interactions.

To date, deception in online dating sites and within e-commerce settings has received particular attention in the research literature, with findings demonstrating the prevalence of strategic and carefully considered deception in these environments (Ellison et al., 2006). In online dating, message senders have been found to carefully consider the potential impact and interpretation of the information and cues that they present and apply the same consideration to subtle cues that may be present in the profiles and messages of others (Ellison et al., 2006). Online dating profiles in particular provide an interesting research area for the deception field, since individuals may be more likely to construct exaggerated or less-than-truthful presentations of themselves to appear more desirable and attractive. This

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is supported by findings that online daters who are considered less attractive are more likely to lie about their physical characteristics and to enhance their profile photos (Toma & Hancock, 2010). The relationship between attractiveness and deception is found only in relation to physical characteristics however, and does not seem to extend to factors such as occupation or income. Due to the potential for future face-to-face meetings to take place in such contexts, these deceptive self-enhancements are likely to be only minor deviations from the truth rather than all-out lies (Toma et al., 2008).

The extent of such deceptive presentations may also be influenced by factors related to the design of online dating web pages. The types of profile questions, the required content, any verification requirements, and the ease with which the profile can be altered or creatively composed all potentially affect the likelihood and ease with which deceptive strategies are used (Toma & Hancock, 2010). Within e-commerce settings, information presentation, information content and information generation can all be manipulated by product sellers to deceive receivers in order to influence their product choices (Xiao & Benbasat, 2011). For instance, visualisations or designs that distract attention can be used during message processing to impact the extent to which particular information may be actively considered or neglected by potential customers (Aditya, 2001).

Research has also examined potential individual differences in the extent that deceptive behaviour is displayed in online environments. Frequent users of online forums and discussion groups have been found to deceive more than infrequent

users, and younger users have been found to deceive more than older users (Caspi & Gorsky, 2006). However, unlike traditional deceptive communication, deception in online environments does not appear to generate the negative emotions, such as guilt, fear or shame that have been found to accompany face-to-face interactions. This suggests an altered form of ethical judgement or differing social norms in such circumstances

scientists, psychologists and economists. The project is exploring the fundamental processes of deception in online interactions and the means through which such deceptions can be deterred using game paradigms. For example, participants may play games against other players who could be computerised, anonymous, socially connected or partly identifiable, and manipulations include the extent that such players are able to cheat and punish.

Since finishing my PhD in 2012, I have increasingly appreciated the benefits of multidisciplinary working in order to address current issues, such as online deception, within society. Rather than remaining within academic research communities, I have taken research positions within both public and private sector organisations focused on human factors and behaviour change, including as a behavioural scientist within the Human

Factors Capability at BAE Systems Advanced Technology Centre. This has allowed me to work with members of several disciplines, including historians, anthropologists, computer scientists and engineers, and as a result my approach to psychological research has evolved considerably – in terms of the research designs and approaches that are taken, how findings are communicated, and the overall aims and scoping of projects.

Psychology has a tremendous contribution to make to current issues across a wide spectrum of industries and communities – the deception field is just one example. I hope to continue to participate in this journey through the development and conduct of research that attempts to bridge the infamous ‘academic–practitioner divide’.



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(Cromwell et al., 2005). Social media environments can be considered a relatively new communication method: considering the anonymity and resultant ease with which profiles and actions may be ‘deleted’ or ‘disassociated’ from actual individuals, deceptive strategies online may present a very different phenomenon to traditional deception approaches until such behaviour is seen to have an observable consequence outside of a virtual community (which an individual may easily remove themselves from).

In my academic career so far, I have been happy to ride a wave of interest in online deception, which looks to explain such processes in terms of related theories of communication and behaviour in order to develop pragmatic detection or intervention strategies. This interest is reflected in recent multidisciplinary projects, such as the deterrence of deception in socio-technical systems, which is a collaboration between Cambridge, Newcastle and Portsmouth Universities and UCL, involving computer

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